This application has been carefully reviewed in light of the Office Action dated July 21, 2008. Claims 1 and 3 to 13 are pending in the application, of which Claims 1, 7 and 8 are independent.

Claims 1 to 13 were rejected under 35 U.S.C. § 103(a) over U.S. Published Appln. No. 2002/0080391 (Sugiura) in view of U.S. Patent No. 6,354,689 (Couwenhoven) and U.S. Patent No. 6,565,174 (Kamoshida). Reconsideration and withdrawal of this rejection are respectfully requested.

Initially, Applicant notes that Claim 2 has been canceled. Therefore, Applicant requests that the rejection of Claim 2 be withdrawn.

A feature of the claimed invention is that data is generated such that (i) dot data is delivered to nozzles in a nozzle sequence having a maximum length in available nozzle sequences that are formed by segmenting nozzles of the print head by a non-ejection nozzle and, (ii) NULL data is delivered to the remaining nozzles, based upon the non-ejection information specifying the non-ejection nozzle acquired by said acquisition unit, and the printer receives a notice of reducing a feed amount by the number of nozzles to which NULL data is delivered preparatory for transmission of the data.

Accordingly, the printer continues to print using a sequence of available nozzles even when clogging of a nozzle occurs in a print head. In addition, in this case, a sequence of available nozzles having a maximum length of nozzles is selected from sequences of available nozzles divided by a non-ejection nozzle to record dots forming an image. Therefore, the lowering of the rate of printing rate can be limited to minimum.

Turning to specific claim language, amended independent Claim 1 is directed to a print control apparatus connected to a printer. The apparatus includes an acquisition unit for acquiring printer information which includes non-ejection nozzle information specifying a non-ejection nozzle of a print head from the printer; a generation unit for generating data such that (i) dot data is delivered to nozzles in a nozzle sequence having a maximum length of available nozzle sequences that are formed by segmenting nozzles of the print head by a non-ejection nozzle and (ii) NULL data is delivered to the remaining, based upon the non-ejection information specifying the non-ejection nozzle acquired by said acquisition unit; and a transmission unit for transmitting the data generated by the generation unit to a printer. The print control apparatus gives the printer a notice of reducing a feed amount by the number of nozzles to which NULL data is delivered preparatory for transmission of the data by the transmission unit.

Applicant respectfully submits that the cited references, namely Sugiura, Couwenhoven and Kamoshida, considered either alone or in combination, fail to disclose or suggest all of the features of the print control apparatus of Claim 1. In particular, the cited references, either alone or in combination, fail to disclose or suggest at least the features of (i) dot data being delivered to nozzles in a nozzle sequence having a maximum length of available nozzle sequences that are formed by segmenting nozzles of the print head by a non-ejection nozzle and (ii) NULL data being delivered to the remaining nozzles, based upon non-ejection information specifying the non-ejection nozzle wherein a printer is given notice of reducing a feed amount by the number of nozzles to which NULL data is delivered preparatory for transmission of the data.

In contrast to the present invention, Sugiura discloses a print control method in which a terminal device transmits print data to a print server managing a printer so as to use the

- 9 -

printer for printing. Furthermore, Kamoshida discloses that data is generated and paper feed is controlled so as to prevent a nozzle that is not used in a predetermined period. However, neither Sugiura nor Kamoshida disclose or suggest at least the features of (i) dot data being delivered to nozzles in a nozzle sequence having a maximum length of available nozzle sequences that are formed by segmenting nozzles of the print head by a non-ejection nozzle and (ii) NULL data being delivered to the remaining nozzles, based upon non-ejection information specifying the non-ejection nozzle wherein a printer is given notice of reducing a feed amount by the number of nozzles to which NULL data is delivered preparatory for transmission of the data.

   Turning now to Couwenhoven, Couwenhoven discloses an apparatus that compensates for a malfunctioning ink nozzle in a multi-tone ink jet print head. The apparatus employs multi-path recording method to eliminate a blank line created by the malfunctioning ink nozzle. A malfunctioning nozzle is compensated by another nozzle that records the same line as should have been recorded by the malfunctioning nozzle. According to one embodiment of the apparatus, the malfunctioning nozzle is assigned to a zero state by properly selecting the set state. Therefore, Couwenhoven teaches a printing method for compensating malfunctioning nozzles by recording dots to be recorded by the malfunctioning nozzles using nozzles forming the same group, that is, nozzles that record the same line that should have been recorded by multi-pass printing. Accordingly, in the disclosures of Couwenhoven, nozzles other than malfunctioning nozzles are utilized to print an image and null data is applied to only malfunctioning nozzles. Thus, the print quality of lines to be printed by the malfunctioning nozzles deteriorate because the line is printed once whereas other lines are printed twice.

   In contrast, the present invention delivers dot data to nozzles in a nozzle sequence having a maximum length of available nozzle sequences that are formed by segmenting nozzles

of the print head by a non-ejection nozzle and delivers NULL data to the remaining nozzles whether the remaining nozzles are malfunctioning or not. This creates an available print head with a nozzle sequence having the maximum length of available nozzles. Thus deterioration of a print quality can be prevented as no redundant multi-pass printing need be performed as in Couwenhoven. Furthermore, Couwenhoven gives no hint of the feature of giving a printer notice of reducing a feed amount by the number of nozzles to which NULL data is delivered preparatory for transmission of the data. Nothing in Sugiura and Kamoshida are seen to cure these deficiencies of Couwenhoven.

In light of the deficiencies of Sugiura, Couwenhoven and Kamoshida as discussed above, Applicant submits that amended independent Claim 1 is now in condition for allowance and respectfully requests same.

Amended independent Claims 7 and 8 are directed to a method and a computer-executable program product embodied in a computer-readable medium, respectively, substantially in accordance with the apparatus of Claim 1. Accordingly, Applicant submits that Claims 7 and 8 are also now in condition for allowance and respectfully requests same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

<center>CONCLUSION</center>

No claim fees are believed due; however, should it be determined that additional claim fees are required, the Director is hereby authorized to charge such fees to Deposit Account 06-1205/

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

/Frank Cire, Reg. No. #42,419/
Frank L. Cire
Attorney for Applicant

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

FCHS_WS 2592538v1